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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,494	11/16/2000	Kazuyoshi Ichihara	P06939US00/L	6010

881 7590 07/16/2002

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SUITE 900
ALEXANDRIA, VA 22314

EXAMINER

FOROHAR, FARHAD

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 07/16/2002

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/700,494

Applicant(s)

ICHIHARA ET AL.

Examiner

farhad

forohar

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 16 November 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

Request for Continued Examination

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 05/16/2002 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baer (Fluoro Alcohols, Industrial and Engineering Chemistry, Vol. 51, No. 7, July 1959, 929-930) in view of Yonemitsu et al (US 3,678,107).

The present invention, in brief, describes a process for producing fluoroalkyl carboxylic acid by oxidizing the precursor fluoroalkyl alcohol with nitric acid while feeding oxygen into the reaction system.

Baer teaches that fluoro alcohols can be oxidized to the corresponding acids by nitric acid (Page 829, third column, last paragraph). Baer does not teach the use of oxygen during the process. Yonemitsu et al, on the other hand, teaches the oxidation of ethylene glycol in the presence of nitric acid and molecular oxygen to produce oxalic acid (Col. 1:55-59). The process can be carried out as a continuous operation with no substantial loss of nitric acid during the reaction (Col. 2:50-59). The reason is believed to be that nitrogen oxide gases generated in the process are oxidized to nitric acid with oxygen during the reaction (abstract). Furthermore, the oxidation can be carried out by using a catalyst such as a vanadium compound (Col. 3:4-9). One would have been motivated to apply the oxidation process of Yonemitsu et al to any nitric acid oxidation of alcohols, including fluoroalkyl alcohols oxidation to the corresponding acids, because Yonemitsu et al has taught that in this process the use of oxygen in the acid medium eliminates the use of the nitric acid regeneration system required in the usual nitric acid oxidation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farhad Forohar. The examiner can normally be reached on Monday-Friday between the hours of 8:00 a.m. and 5:00 p.m. at (703) 305-1022.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter, SPE of Art Unit 1623, may be reached at (703) 308-4532. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4426.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-4556.

For 24 hour access to patent application information 7 days a week, or for filing applications electronically, please visit our website at www.uspto.gov and click on the button "Patent Electronic Business Center" for more information.

F-F
July 11, 2002



(fr) Johann R. Richter, Ph.D., Esq.
Supervisory Patent Examiner 7/11/02

TC 1600